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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,958

03/31/2004

Hartej Singh

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5882

7590

08/13/2008

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EXAMINER

JAIN, RAJ K

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

08/13/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/813,958

**Applicant(s)**

SINGH ET AL.

**Examiner**

RAJ K. JAIN

**Art Unit**

2616

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 12-21 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 4, 11, 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-10, 12-16, 19-21 and 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al ( US 2004/0177087 A1).

Regarding claim(s) 1, 10, 16 and 19, Wu discloses a method, comprising:

receiving a first value representing an allowed amount of target traffic (Fig. 5, para 14 an allowed amount of target traffic is determined by traffic profile for each AF class type) and

second value representing a time interval during which to receive the allowed amount of target traffic (Fig. 5; para 44, a time interval is determined based on a timer function as illustrated in Fig. 4), the first value and the second value defining a percentage of target traffic allowed through a port (ratio of target traffic or fair share of TCP vs UDP traffic in a given time represents the percentage of traffic allowed thru the port; Fig. 5 and para 44), the port having a port speed (Figs 1 and 5, each port has a specific speed as illustrated by the TCP target rate in Kbps); and

determining that port speed changed by a factor of N (Fig. 5, TCP rate varies based on the bandwidth of the bottleneck port selected, para 44:)

scaling the second value by a factor of 1/N (weights are adjusted periodically for a determined or dynamic interval and thus as the port speed changes by a value of say N likewise its rate of transfer changes by a factor of 1/N in order to maintain ratio proportionality, paras 38 and 44), respectively; and

based on the allowed amount of target traffic and the scaled second value, dropping target traffic when a percentage of target traffic exceeds the defined

percentage of target traffic allowed through the port (a drop profile is determined to drop packets as desired paras 4, 35-43).

Regarding claim(s) 2, 5, 20, Wu discloses various port speeds (Fig. 5) and therefore different clocks.

Regarding claim(s) 3, 21, Wu discloses receiving the selected clock and incrementing a counter using the selected clock (para 39).

Regarding claim(s) 6, 12 and 23, Wu discloses comprising: comparing an amount of target traffic to the allowed amount of target traffic; and causing a status flag to be set when the amount of target traffic and the allowed amount of target traffic are equal (para 34, various types of traffic are marked to specific classes and tracked by a self adaptive fair scheduler to control and adjust traffic weights).

Regarding claim(s) 7, 13 and 24, Wu discloses dropping target traffic until the time interval represented by the scaled second value has elapsed (Fig. 5, specific profiling is used to drop traffic as desired).

Regarding claim(s) 8, 14 and 25 Wu discloses permitting target traffic through the port after the time interval represented by the scaled second value has elapsed (Fig. 6, target traffic is dynamically adjusted for different times).

Regarding claim(s) 9, 15, Wu discloses receiving the first value representing an allowed amount of broadcast, multicast, or destination unknown traffic (Fig. 5, TCP or UDP Kbps values representing allowed amount of target traffic).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al ( US 2004/0177087 A1) as applied to claim 16 above, and further in view of Jones et al (USP 5,991,271).

Wu fails to explicitly disclose UTP and/or STP cabling for communications.

Jones discloses UTP and/or STP cabling for communications (col 1 lines 15-24). The use of different cablings allows for designers to accommodate cost and transmission parameters as desired. Thus it would have been obvious at the time the invention was made to incorporate the teachings of Jones within Wu so as to provide a varied transmission medium to accommodate cost and transmission parameters as desired.

#### ***Allowable Subject Matter***

Claims 4, 11 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed 6/9/08 have been fully considered but they are not persuasive.

With respect to claim 1, Applicant contends Wu fails to teach a second value representing a time interval during which to receive the allowed amount of target traffic.

Examiner respectfully disagrees, Wu discloses a second value representing a time interval during which to receive the allowed amount of target traffic (Fig. 5; para 44, a time interval is determined based on a timer function as illustrated in Fig. 4), furthermore para 44 states that table of Fig. 5 shows the time interval of each flow (emphasis added), the Examiner asserts that this time interval is interpreted as a second value.

Applicant further contends that Wu does not explicitly or inherently disclose separating bandwidth into two values: (1) an allowed amount of traffic, e.g., in bits or bytes; and (2) a time in which to receive the allowed amount of traffic, e.g., one second, one-tenth etc. This argument is moot as it is irrelevant how Wu measures the time

period or whether they are limited to a measurement period, only the fact that a time period is being measured is required per the claim. Furthermore, as the port speed changes so will the time interval to maintain the required target rates of the bits.

Applicant further contends Wu fails to disclose "scaling the second value by a factor of  $1/N$ ". Examiner disagrees, Wu discloses scaling the second value by a factor of  $1/N$  (see para 38) weights are adjusted periodically for a determined or dynamic interval and thus as the port speed changes by a value of say  $N$ , likewise its rate of transfer changes by a factor of  $1/N$  in order to maintain ratio proportionality. Para 38 states that the scheduling function allocates bandwidth to queues according to determined weights. Furthermore, paras 1 & 3 states the invention as being a differentiated service architecture to provide scalable means for delivering quality of service based on handling of traffic aggregates. The Examiner respectfully asserts that in order to maintain a proper bandwidth amongst plurality of queues, some form of packet sharing and/or scheduling is necessary based on changes in the transmission parameters of a network and therefore as the bandwidth changes a proportional amount of transmission speed will change accordingly. Examiner asserts that one skilled in the art will appreciate that as the flow rate changes within a pipe (link) the time interval will change not on a one to one basis but rather it will change inversely proportional to the rate of change of the flow to maintain a constant amount of target traffic rates.

Thus based on above reasoning Examiner respectfully asserts that Wu either explicitly or inherently discloses all limitations of claim 1 and therefore the rejection to claim 1 is sustained.

With respect to claims 17 and 18, Examiner asserts that these claims are properly rejected under the above cited art and therefore the rejection to claims 17 and 18 is sustained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2616

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJ K. JAIN whose telephone number is (571)272-3145. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*/Raj K. Jain/*

*Art Unit 2616*

*August 13, 2008*

*/Chi H Pham/*

*Supervisory Patent Examiner, Art Unit 2616*

*8/11/08*